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Rosellinia brunneola sp. nov. and *R. beccariana* new to China

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Abstract — A new species, *Rosellinia brunneola*, is described from Hainan Province, China; and *Rosellinia beccariana* from Yunnan Province is described as new to China.

Key words —*Ascomycota*, pyrenomycetous fungi, *Xylariaceae*, taxonomy

Rosellinia species, which are cosmopolitan in their distribution, are especially rich in tropical and subtropical regions. 142 species have been recognized (Petrini 2013). During mycological expeditions to tropical regions of Hainan and Yunnan Provinces, many specimens of *Rosellinia* have been collected, from which a new species and a new Chinese record are described here.

Rosellinia brunneola Wei Li bis & L. Guo, **sp. nov.** Figs 1–3

Fungal Name FN 570115

Differs from *Rosellinia mastoidiformis* by its smaller stromata and ascospores with a straight germ slit that is as long as spore length or almost so.

Type: China, Hainan, Lingao, Juliu, alt. 250 m, on dead stems, 4.XII.2010, L. Guo 11546 (HMAS 269893, **holotype**).

Etymology: The epithet refers to the color of ascospores.

Stromata gregarious or solitary, 0.44–0.7 mm high, 0.6–0.8 mm wide, semiglobose or coniform, with top tapering to a point, surface smooth, black. Ostioles papillate. Subiculum not seen. Ectostroma 30–60 µm thick, black. Entostroma white or brownish. Asci eight-spored, with spores arranged in biseriate manner, cylindrical, the spore-bearing part 100–120 × 10–12.5 µm, with apical ring bluing in Melzer's iodine reagent, cylindrical, 6–7 µm high, 3–4 µm broad. Ascospores brownish, asymmetrically ellipsoidal, with rounded

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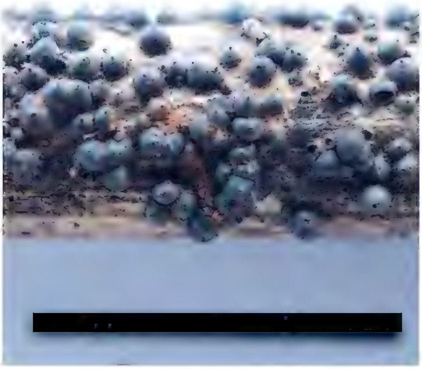

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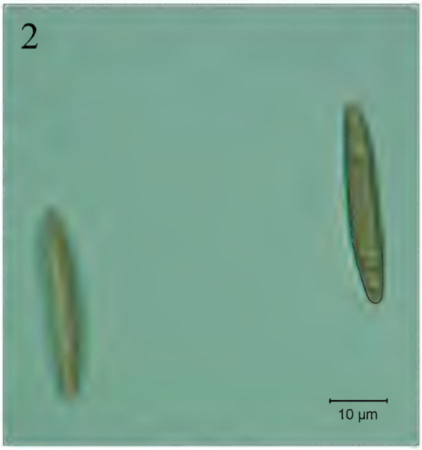

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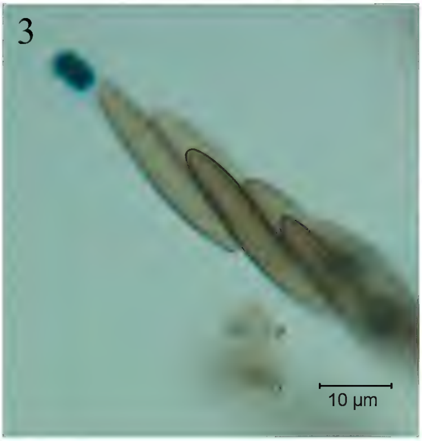

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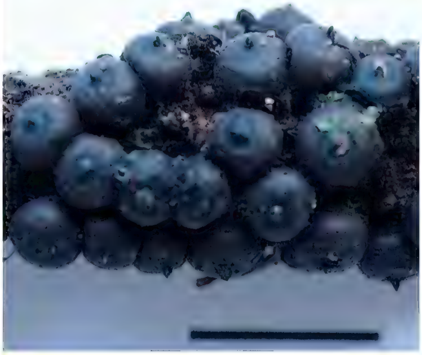

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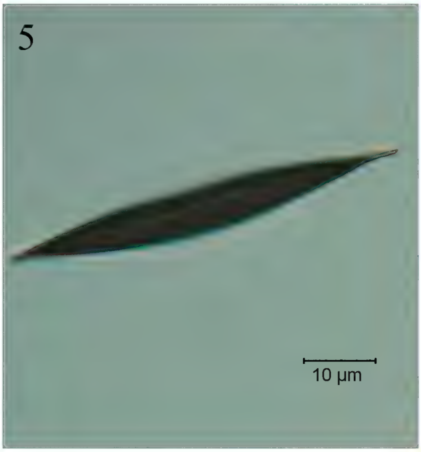

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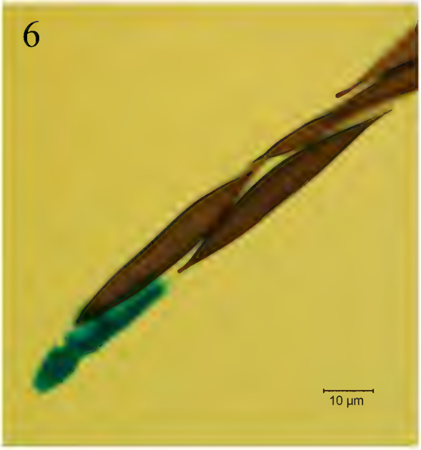

ends, 31–39 × 5–7 µm (33.8 ± 3.2 × 5.9 ± 1.1 µm; 95%CI: 32–35 µm, 5.5–6.5 µm), with straight germ slit, 26–34 µm long.

COMMENTS: *Rosellinia brunneola* is similar to *R. mastoidiformis* Saccas, which differs by having larger stromata (0.5–0.9 mm high, 0.6–1 mm wide) and ascospores with straight and indistinct germ slit that is shorter than spore length (Petrini 2013).

Rosellinia beccariana Ces., Atti Accad. Sci. Fis. Mat. Napoli 5(21): 12. 1872.
FIGS 4–6

Stromata gregarious or solitary, subglobose, sometimes with a broad, short stipe, copper brown or black, 2.25–3.7 mm high, 2.9–3.75 mm wide, surface smooth. Ostioles up to 600 µm, pointed. Ectostroma 150–200 µm thick, black. Perithecia subglobose, 1.7–3.15 mm high, 2.6–3.5 mm wide. Asci eight-spored, with spores arranged in biseriate manner, cylindrical, 278–355 µm total length, 10–12.5(–15) µm broad, the spore bearing part 201–248 µm long, with apical ring bluing in Melzer's iodine reagent, arrowhead-shaped, 25–27 µm high, 5–8 µm broad. Ascospores brownish or brown, unicellular, asymmetrically fusiform, with thread-like ends, 48–68 × 6–9 µm, with straight germ slit shorter than spore-length on flat side.

COMMENTS: The ends of the ascospores in the Chinese material lack the slimy sheath, which is absent in old material (Petrini 2013). The large stromata with markedly acute ostioles make this fungus easy to recognize.

SPECIMEN EXAMINED: CHINA, YUNNAN, Mengla, Menglun, Xishuangbanna Tropical Botanical Garden, Chinese Academy of Sciences, alt. 570 m, on corticated wood, 15.X.2013, W. Li 2903 (HMAS 253034).

Including the two species reported in this paper, 36 *Rosellinia* species have been recorded in China (Teng 1963, Tai 1979, Ju & Rogers 1990, 1999, Yuan & Zhao 1993, Liu et al. 2010, Petrini 2013).

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FIGS 1–3. ***Rosellinia brunneola*** (HMAS 269893, holotype). 1. Stromata on dead stems (bar = 1 cm); 2. Ascospores; 3. Ascus. FIGS 4–6. ***Rosellinia beccariana*** (HMAS 253034). 4. Stromata on wood (bar = 1 cm); 5. Ascospores; 6. Ascus.

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